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HUNTER USE AND HARVEST ON PUBLIC WATERFOWL AREAS DURING 1973

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Abstract:

Thirty seven public waterfowl areas in Illinois were surveyed for hunter use, harvest and success during the 1973 duck season. There were 70,847 hunter efforts which resulted in 38,807 ducks bagged for an over-all average daily success ratio of .55. Data was compared to 1972 on 15 selected areas. Hunter use increased four percent, harvest decreased six percent and average daily success ratio decreased 10 percent.

INTRODUCTION

Harvest data provides a measuring device to assess waterfowl population condition, migrations, various habitat conditions and success of management programs. Hunter use information is valuable in determining patterns in hunting pressure, effects of regulations and general acceptance of public waterfowl management programs. These items provide a foundation on which site managers, staff and administrators can base future planning and development decisions.

The purpose of this report is to summarize hunter use and harvest data for public waterfowl areas in Illinois.

Personnel of the Bureau of Sport Fisheries and Wildlife at Crab Orchard and Chautauqua National Wildlife Refuges kindly provided estimates of harvest data from their areas. The Murphysboro and Jonesboro Districts of the U. S. Forest Service also made available estimates from their areas.

Appreciation is due to all Area and District Biologists for their participation in data collection. Particular thanks go to Herman Hier, Dave Klinedinst, Bob Williamson, Tom Kwak, Bob Cottingham, Floyd Kringer, Paul Moore, Bill Mestel, Jack Golden and John Slatcher. For these biologist and their staff this task come in addition to their regular duties.

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METHODS

Hunter use and harvest data come from four sources. Check stations are operated on some areas and require complete registration of hunters and harvest. Two methods make projections from sampling techniques. At Carlyle Lake, Rend Lake, Oakwood Bottoms, Larue Scatters and Chautauqua NWR complete car counts were made accompanied by bag checks at randomly selected access points. On other areas car counts on randomly selected days and windshield mail cards were utilized to project hunting efforts and harvest. On areas where man power constraints prohibited one of the survey techniques an estimate was made. Estimates were based on prior surveys or on data from comparable areas. Techniques utilized for each area are identified in the summary table (Table 1).

There was no attempt to correct projections on sample data. The degree of sampling error and reporting bias is unknown. Formulas for projections of sample data are not reproduced here but are on file at the Union County Field Office.

RESULTS AND DISCUSSION

The expanded survey in 1973 indicated there were 70,847 days of effort expended hunting waterfowl on public areas in Illinois (Table 1). These efforts yielded 38,807 ducks or a .55 success ratio per hunter trip.

Carlyle Lake is the single most important area in the state, ranking first in hunter trips with 8,270 or 12 percent of the total. There were 5,634 ducks harvested at Carlyle Lake accounting for 15 percent of the total. It ranked number seven in hunter success (Table 1).

Rend Lake, Batchtown, Oakwood and Stump Lake claimed substantial portions of hunter use while Rend Lake, Batchtown, Stump Lake, Godar-Diamond, and Pool 13 were significant harvest areas (Table 1).

Areas providing the best hunting success were Potters Marsh, Pool 13, Godar-Diamond, Pool 16 and Batchtown (Table 1).

As success ratios indicate, 1973 was not a productive year (Table 1). A comparison of areas from which we had data in 1972 (Kennedy, Senn and Arthur, 1973) and the same areas this year reveal a 10 percent drop in hunter success (Table 2).

There was a minus six percent in duck harvest which was offset from the drop in success by an increase of four percent in hunting efforts (Table 2). The increase in hunting efforts is almost completely the result of the Batchtown area having suitable water conditions to allow continual hunting throughout the season. In 1972 there were several "no hunting" days because of low water. The 58 percent increase in hunters at Rend Lake may be the result of different survey techniques in the two years.

Oakwood Bottoms again become a dominate area with a 34 percent increase in harvest and a 65 percent increase in success. There are strong indications from banding data (to be subject of a later report) that this increase resulted from poor habitat conditions at Carlyle Lake thus allowing birds to move further south in the state.

Batchtown, Stump Lake and Calhoun Point also had substantially increased harvest.

Table 1. Hunter Use, Harvest and Success from Public Waterfowl Areas in Illinois during 1973.

Area	Hunting Pressure			Harvest			Success Per Hunter Effort		
	Hunters	Percent of Total	Rank	Harvested	Percent of Total	Rank	Average Daily Success Ratio	Rank	Rank
Carlyle Lake ²	8,270	.12	1	5,634	.15	1	.68	7	7
Rend Lake ²	6,013	.08	2	3,798	.10	2	.63	8	8
Batchtown ¹	4,786	.07	3	3,365	.09	3	.70	5	5
Oakwood Bottoms ²	4,172	.06	4	1,780	.05	8	.43	16	16
Stump Lake ¹	4,134	.06	5	2,566	.07	4	.62	9	9
Pool 18 ³	3,000	.04	6	1,491	.04	9	.50	14	14
Mississippi River Blinds ⁴	3,274	.05	7	819	.02	15	.25	28	28
Godar Diamond ¹	2,586	.04	8	2,104	.05	6	.81	3	3
Sanganais ¹	2,577	.04	9	1,390	.04	10	.54	13	13
Marshall County ¹	2,562	.04	10	991	.03	13	.32	26	26
Pool 13 ³	2,131	.03	11	2,505	.06	5	1.18	2	2
Grass Lake ⁴	1,782	.03	12	356	.01	25	.20	29	29
Calhoun Point ¹	1,701	.02	13	1,010	.03	12	.59	12	12

1. Check station
2. Car counts/bag check
3. Car counts/mail cards
4. Estimate

Table 1. Hunter Use, Harvest and Success from Public Waterfowl Areas in Illinois during 1973. (continued)

Area	Hunting Pressure			Harvest			Success Per Hunter Effort		
	Hunters	Percent of Total	Rank	Harvested	Percent of Total	Rank	Average Daily Success Ratio	Rank	Rank
Rice Lake ¹	1,587	.02	14	789	.02	17	.50	15	15
Pool 17 ³	1,541	.02	15	1,080	.03	11	.70	6	6
Potters Marsh ³	1,495	.02	16	1,857	.05	7	1.24	1	1
Mermet ¹	1,475	.02	17	579	.01	18	.39	19	19
Glades ¹	1,425	.02	18	550	.01	19	.39	20	20
Spring Lake ¹	1,394	.02	19	408	.01	23	.29	26	26
Woodford County ¹	1,347	.02	20	523	.01	21	.39	21	21
Pool 16 ³	1,328	.02	21	951	.02	14	.72	4	4
Quincy Bay ⁴	1,300	.02	22	800	.02	16	.62	10	10
Will-Grundy ³	1,132	.02	23	380	.01	24	.38	22	22
Wm. Powers Cons. Area ⁴	1,100	.02	24	275	.01	27	.25	28	28
Larue Scatters ²	1,042	.01	25	270	.01	28	.26	27	27
Sparland ³	1,037	.01	26	427	.01	22	.41	17	17

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Table 1. Hunter Use, Harvest and Success from Public Waterfowl Areas in Illinois during 1973. (continued)

Area	Hunting Pressure			Harvest			Success Per Hunter Effort		
	Hunters	Percent of Total	Rank	Harvested	Percent of Total	Rank	Average Daily Success Ratio	Rank	Rank
Pool 20 ⁴	1,000	.01	27	200	.01	32	.20		29
Pool 12 ³	879	.01	28	532	.01	20	.61		11
Illinois River Blinds ⁴	864	.01	29	216	.01	30	.25		28
Anderson Lake ¹	828	.01	30	261	.01	29	.38		23
Shelbyville Lake ^{2,3}	803	.01	31	295	.01	26	.37		24
Chautauqua ²	514	.01	32	209	.01	31	.41		18
Crab Orchard NWR ⁴	500	.01	33	125	T	33	.25		28
Lake Sinnissippi ⁴	500	.01	34	100	T	35	.20		28
Kankakee State Park ³	384	.01	35	50	T	36	.13		30
Bluff Lakes ⁴	300	T	36	100	T	34	.33		25
Pool 14 ⁴	84	T	37	21	T	37	.25		28
Totals	70,847	1.01		38,807	1.02		.55		

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Table 2. Hunter use, harvest, average daily success and differences between 1972 and 1973 from public duck hunting areas for which data were available.

	Hunter Use			Harvest			Average Daily Success Ratio		
	1972	1973	Percent Change	1972	1973	Percent Change	1972	1973	Percent Change
Carlyle Lake ¹	9,362	8,270	-12	7,736	5,634	-27	.84	.68	-19
Oakwood ^{1,2}	5,443	4,172	-23	1,327	1,780	+34	.26	.43	+65
Reed Lake ¹	3,800	6,013	+58	3,534	3,798	+07	.93	.63	-32
Stump Lake	3,486	4,134	+19	1,957	2,566	+31	.56	.62	+11
Godar Diamond	2,917	2,586	-11	2,366	2,104	-11	.80	.81	+01
Batchtown	2,826	4,786	+69	2,133	3,365	+58	.75	.70	-07
Mermet	2,369	1,475	-38	944	579	-39	.40	.39	-02
Marshall Co.	2,102	2,562	+22	1,809	991	-45	.86	.32	-63
Calhoun Point	1,745	1,701	-03	668	1,010	+51	.38	.59	+55
Glades ^{1,2}	1,676	1,425	-15	888	550	-38	.52	.39	-25
Larue Scatters ^{1,2}	1,550	1,042	-33	337	270	-20	.22	.26	+18
Spring Lake	1,537	1,394	-09	605	408	-33	.39	.29	-26
Rice Lake ³	1,159	1,587	+37	621	789	+27	.53	.50	-06
Sanganois	2,287	2,577	+13	1,911	1,390	-27	.84	.54	-36
Anderson Lake	595	828	+39	261	318	+22	.44	.38	-14
Totals	42,854	44,552	+04	27,097	25,552	-06	.63	.57	-10

1. Figures projected from sample bag checks and car counts

2. Areas operated and information furnished by the U. S. Forest Service

3. Sanganois due to high water in 1972 had an estiment included in the figures for late season when no check station was operated